Paper No. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

***Ex parte*** ALLEN M. CHAN

Appeal No. 1997-4452
Application No. 08/653,978

ON BRIEF

Before JERRY SMITH, DIXON, and FRAHM, **Administrative Patent Judges**.

DIXON, **Administrative Patent Judge**.

## DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-31, which are all of the claims pending in this application.

We REVERSE.

## BACKGROUND

The appellant's invention relates to an anti-aliasing apparatus and method with automatic snap fit of horizontal and vertical edges of the image to target grid. The method of the invention downwardly scales outline data to the desired scale, then snap fits the horizontal and vertical edges of the image to the target grid. The fitted outline of the image is then upwardly scaled to an integer multiple of the desired grid. The upwardly scaled outline is then processed into a bitmap and the bitmap is then scaled down to the desired grid with anti-aliasing. An understanding of the invention can be derived from a reading of exemplary claim 15, which is reproduced below.

> 15. An [sic] computer image rendition method for rendering a bit-mapped image having anti-aliasing effects onto a target grid from a supplied set of plot instructions stored in memory for an image wherein the plot instructions define a plotting of an ideal outline of the image to be rendered, said method including the steps of:
>
> forming target outline data defining a first plot of the ideal outline, scaled and grid fitted onto a target grid, and
>
> forming mezzanine outline data defining a second plot of the desired outline, upwardly scaled from the target outline data onto a mezzanine grid, wherein plural grid boxes of the mezzanine grid tile perfectly into each grid box of the target grid.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

| | | |
|---|---|---|
| Kang | 5,270,836 | Dec. 14, 1993 |
| Hassett et al. (Hassett) | 5,301,267 | Apr. 05, 1994 |

Claim 15 stands rejected under 35 U.S.C. § 102 as being unpatentable over Hassett. Claims 1-14 and 16-31 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hassett in view of Kang.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 19, mailed May 23, 1997) for the examiner's reasoning in support of the rejections, and to the appellant's brief (Paper No. 18, filed Feb. 3, 1997) and reply brief (Paper No. 20, filed Jul. 23, 1997) for the appellant's arguments thereagainst.

**OPINION**

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

**35 U.S.C. § 102**

Appellant argues that the answer does not address the claim limitation with respect to “forming mezzanine outline data defining a second plot of the desired outline, upwardly scaled from the target outline data onto a mezzanine grid . . .” as it relates to a showing of anticipation. (See reply brief at pages 2-4.) We agree with appellant. The examiner maintains the rejection and uses the terms “obviousness and triviality” along with “level of

skill." (See answer at page 7.) These are not considerations in a rejection based upon anticipation. Therefore, the examiner's rejection under 35 U.S.C. § 102 is deficient and the examiner has not provided a ***prima facie*** case of anticipation. Therefore, we will not sustain the rejection of claim 15.

**35 U.S.C. § 103**

Appellant argues that the rejection is "based upon a conclusory allegation that is without any factual support." (See reply brief at page 5.) We agree with appellant. The examiner maintains that "[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to use the intermediate resolution method of Kang to fill the outline data of Hassett et al. in order to produce a filled character whose edge is aligned on a grid representing the display space." (Answer, page 5). In our view, this is merely a conclusion which the examiner has not supported with any underlying line of reasoning for combining the outline-based processing of Hassett with the bit-mapped based processing of Kang. The examiner has not provided any convincing rationale of performing a portion of the bitmap processing involving upscaling the image while the image is still in the format of the outline as taught by Hassett. The examiner "relies on a reasonable standard of knowledge and ability of

one of ordinary skill in the art to show the obviousness and triviality of the various conversions between resolutions." (See answer at pages 7-8.) Furthermore, the examiner maintains that the claim limitations not specifically addressed by the examiner "either (1) are inherent in the references or (2) were well-known to one of ordinary skill in the art having the ability to interpret the references." (See answer at page 8.) We disagree with the examiner. For example, the examiner states that the Kang discloses "mezzanine outline data (intermediate resolution input image -- column 3, line 3)" (answer, page 4). We disagree with the examiner. The "intermediate resolution input image" described in Kang is a bitmap image rather than an outline as the examiner maintains. (See Kang col. 1, line 2 and figures 1-5.) The examiner has indiscriminately combined various portions of different teachings without providing a line of reasoning why the skilled artisan would have performed the portion of bit-mapped processing while still in the outline format rather than in the bitmap format as taught by Kang.

When it is necessary to select elements of various teachings in order to form the claimed invention, we ascertain whether there is any suggestion or motivation in the prior art to make the selection made by the appellants. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. The extent to which such suggestion must be explicit in, or may be fairly inferred from, the references, is decided on

the facts of each case, in light of the prior art and its relationship to the appellants' invention. As in all determinations under 35 U.S.C. § 103, the decision maker must bring judgment to bear. It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the appellants' structure as a template and selecting elements from references to fill the gaps. The references themselves must provide some teaching whereby the appellants' combination would have been obvious. **In re Gorman**, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (citations omitted). That is, something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. **See In re Beattie**, 974 F.2d 1309, 1312, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992); **Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick Co.**, 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984). In determining obviousness/nonobviousness, an invention must be considered "as a whole," 35 U.S.C. § 103, and claims must be considered in their entirety. **Medtronic, Inc. v. Cardiac Pacemakers, Inc.**, 721 F.2d 1563, 1567, 220 USPQ 97, 101 (Fed. Cir. 1983). Since the limitation that mezzanine outline data defining a second plot of the desired outline is formed wherein the desired outline is upwardly scaled from the target outline data onto a mezzanine grid is not taught or suggested by the applied prior art, we will not sustain the

35 U.S.C. § 103 rejection of independent claims 1, 6, 11, 16 and 24, and of dependent claims 2-5, 7-10, 12-14, 17- 23 and 25-31.

**CONCLUSION**

To summarize, the decision of the examiner to reject claim 15 under 35 U.S.C. § 102 is reversed, and the decision to reject claims 1-14 and 16-31 under 35 U.S.C. § 103 is reversed .

**REVERSED**

| | |
|---|---|
| JERRY SMITH<br>Administrative Patent Judge | ) |
| JOSEPH L. DIXON<br>Administrative Patent Judge | ) BOARD OF PATENT<br>) APPEALS<br>) AND<br>) INTERFERENCES |
| ERIC FRAHM<br>Administrative Patent Judge | ) |

vsh

BURNS, DOANE, SWECKER & MATHIS
P.O. BOX 1404
ALEXANDRIA , VA 22313-1404